

37th Annual Meeting, APS Division of Plasma Physics

6-10 November 1995, Louisville, KY

Abstract Submittal Form

Deadline: Friday, 7 July 1995

Subject Classification Category 4.7

[] Theory [x] Experiment

(Refer to the DPP Subject Category list on page M12.)

Energetics of gas-filled hohlraums,* T. J. Orzechowski, R. L. Kauffman, R. K. Kirkwood, H. N. Kornblum, B. J. MacGowan, D. S. Montgomery, L. V. Powers, G. F. Stone, L. J. Suter, R. J. Wallace, *Lawrence Livermore National Laboratory Livermore, Livermore, CA 94551*, D. Desenne, A. G. Dulieu, D. Juraszek and A. L. Richard, *CEA-Limeil, Villeneuve-Saint-Georges, FRANCE* - Advanced hohlraum designs for ICF include the use of a low-density ($n < 0.1n_c$) plasma, or tamper, to impede the motion of the high-Z hohlraum wall material. We are investigating the effect of the tamper on the energetics of the hohlraum by measuring the time dependent drive inside the hohlraum for different tamper densities. The plasma density is varied by changing the gas species in the hohlraum. To account for the over-all energy balance, we measure the scattered laser light and subtract this from the incident laser energy to model the hohlraum performance. We find that the tamped-hohlraum temperature is reduced about 5 to 10% due to the energy expended in ionizing and heating the tamping material.

***Work performed under the auspices of the U.S. Department of Energy by the Lawrence Livermore National Laboratory under Contract W-7405-ENG-48.**

- [] Prefer Poster Session
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Submitted by:

 (Signature of APS Member)

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A faxed copy is not acceptable. This form, or a computer generated form, plus **TWO COPIES**, must be received by **Friday, 7 July, 1995** at the following address:

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